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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,594

09/05/2006

Hidehiko Oota

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EXAMINER

CHEN, TIANJIE

ART UNIT

PAPER NUMBER

2627

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,594	<b>Applicant(s)</b> OOTA, HIDEHIKO	
	<b>Examiner</b> Tianjie Chen	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 19 is/are rejected.
- 7) ☒ Claim(s) 2-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

***Non-Final Rejection***

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Otsubo et al (US 6,041,033).

Claim 1, Otsubo et al shows a chucking apparatus in Figs. 1-7 in which a plurality of pawl bodies 126 are provided in a radial direction of a hub body 125 of a turntable such that the pawl bodies can move, and a center hole of a disk 23 is pressed by the pawl bodies to hold the disk (Fig. 7), wherein

the chucking apparatus comprises a resilient member 127 for biasing the pawl bodies outward of the hub body,

each of the pawl bodies includes a pawl portion 126d which comes into contact with the disk,

and a pawl-side stopper 126a for limiting outward movement of the pawl bodies caused by the resilient member (Column 6, lines 31-34),

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the hub body includes a pawl opening 125a (Fig. 5C) through which the pawl portion can project outward,

and a hub-side stopper 125b (Figs. 5A and 6) which abuts against the pawl-side stopper,

a downward guide surface 126b is provided at a location lower than a tip end of the pawl portion,

the hub body is provided with an upper receiving surface 122 at a position opposed to the downward guide surface, and the pawl portion is pressed from above so that the downward guide surface slides along the upper receiving surface and the pawl portion moves inward (Figs. 6 and 7).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamori (US 6,188,660) in view of Otsubo et al.

Claim 19, Yamamori shows in Fig. 5 a disk apparatus, wherein the disk apparatus comprises a chassis outer sheath including a base body and a lid, a front surface of the chassis outer sheath is formed with a disk inserting opening in which a disk is directly inserted, a traverse provided on the base body holds a spindle motor

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and a pickup, an upper surface of the spindle motor includes the turntable, and the traverse is moved toward and away from the base body.

Nakayama shows a chucking apparatus as described above and teaches that the holding mechanism can be used to load and unload disks of different thicknesses and inner diameters, and can stably rotate the disk in a positively-loaded condition (Column 3, lines 35-40). One of ordinary skill in the art would have been motivated to use the chucking mechanism taught by Otsubo et al into Yamamori's device for better loading and unloading disks.

***Allowable Subject Matter***

4. Claims 2-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- With regard to claims 2-4, as the closest reference of record, Otsubo et al (US 6,041,033) discloses a chucking apparatus in Figs. 1-7 in which a plurality of pawl bodies 126 are provided in a radial direction of a hub body 125 of a turntable such that the pawl bodies can move, and a center hole of a disk 23 is pressed by the pawl bodies to hold the disk (Fig. 7), wherein the chucking apparatus comprises a resilient member 127 for biasing the pawl bodies outward of the hub body, each of the pawl bodies includes a pawl portion 126d which comes into contact with the disk, and a pawl-side stopper 126a for limiting outward movement of the pawl bodies caused by the resilient member (Column 6, lines 31-34), the hub body includes a pawl opening 125a (Fig. 5C)

through which the pawl portion can project outward, and a hub-side stopper 125b (Figs. 5A and 6) which abuts against the pawl-side stopper, a downward guide surface 126b is provided at a location lower than a tip end of the pawl portion, the hub body is provided with an upper receiving surface 122 at a position opposed to the downward guide surface, and the pawl portion is pressed from above so that the downward guide surface slides along the upper receiving surface and the pawl portion moves inward (Figs. 6 and 7); **but fails to show** a surface extending downward from the tip end of the pawl portion is a disk holding surface, and the downward guide surface is provided on a side portion of the disk holding surface.

- With regard to claims 5 and 7, Otsubo et al **fails to show** that the downward guide surface comprises at least a first inclined surface and a second inclined surface, if the pawl portion is pressed from above by the disk, the first inclined surface is a surface against which the upper receiving surface abuts when a tip end of the pawl portion is inserted into a center hole of the disk or before the tip end of the pawl portion is inserted into the center hole of the disk, the second inclined surface is a surface against which the upper receiving surface abuts after the tip end of the pawl portion is inserted into the center hole of the disk, an angle formed between the second inclined surface and a pressing direction is smaller than an angle formed between the first inclined surface and the pressing direction.
- With regard to claim 6, Otsubo et al **fails to show** that an inner side guide surface comprising an inclined surface which gradually becomes higher toward a center of the hub body is provided on an inner side of the pawl body, the

inner side guide surface comprises at least a first inclined surface and a second inclined surface, if the pawl portion is pressed from above by the disk, the first inclined surface is a surface against which the pawl-side stopper abuts when a tip end of the pawl portion is inserted into a center hole of the disk or before the tip end is inserted into the center hole of the disk, the second inclined surface is a surface against which the pawl-side stopper abuts after the tip end of the pawl portion is inserted into the center hole of the disk, an angle formed between the second inclined surface and a pressing direction is smaller than an angle formed between the first inclined surface and the pressing direction.

- With regard to claim 8, Otsubo et al **fails to show** that the upper receiving surface comprises at least a first inclined surface and a second inclined surface, if the pawl portion is pressed from above by the disk, the first inclined surface is a surface against which the downward guide surface abuts when a tip end of the pawl portion is inserted into a center hole of the disk or before the tip end is inserted into the center hole of the disk, the second inclined surface is a surface against which the downward guide surface abuts after the tip end of the pawl portion is inserted into the center hole of the disk, an angle formed between the second inclined surface and a pressing direction is smaller than an angle formed between the first inclined surface and the pressing direction.
- With regard to claims 9-18, Otsubo et al **fails to show** that a surface extending downward from a tip end of the pawl portion is a disk holding surface, and the downward guide surface is provided on a side portion of the disk holding surface, the pawl body is provided with the downward guide surface at a location higher than the disk holding surface or at a location of the same height

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as that of the disk holding surface, a downward receiving surface is provided on the hub body at a location opposed to the upward guide surface, the pawl opening is provided in a range extending from an outer periphery of an upper surface of the hub body to its side surface, a side surface opening width of the side surface is greater than an upper surface opening width of the outer periphery of the upper surface of the pawl opening, the downward receiving surface is disposed on lower surfaces of both side portions of the upper surface opening, and the upper receiving surface is disposed on upper surfaces of both side portions of the side surface opening.

### ***Conclusion***

5. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tianjie Chen/  
Primary Examiner, Art Unit 2627